Annual Water Quality Report 2014
Pekara Water Service Area

Lake County Illinois Department of Public Works

Purpose and Background

This is the annual water quality report (or consumer confidence report) for the period of January 1 to December 31, 2013. Each year we will issue this report to provide information about the quality of our drinking water as well as details on the source of our water and what it contains. The reports are being issued in compliance with the requirements of the Safe Drinking Water Act and are also intended to demonstrate our commitment to providing a safe and reliable supply of drinking water.

Water Quality

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of certain contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the US Environmental Protection Agency's (USEPA) Safe Drinking Water Hotline at 1-800-426-4791.

To ensure that tap water is safe to drink, the Environmental Protection Agency prescribes limits on the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Your tap water quality is consistently monitored by the County and the Illinois Environmental Protection Agency (IEPA).

Water quality is judged by comparing your water to USEPA benchmarks for water quality. One such benchmark is called the Maximum Contaminant Level Goal (MCLG). The MCLG is the level of a contaminant in drinking water below which there is no known or expected health risk. This goal allows for a margin of safety. Another benchmark is a Maximum Contaminant Level (MCL). An MCL is the highest level of a contaminant that is allowed in drinking water. An MCL is set as close to an MCLG as feasible using the best available treatment technology. The MCL and MCLG are established by the USEPA.

Questions?

Public Participation… If you have any questions about this report or about your water system please contact Austin McFarlane at 847-377-7500 or by email to amcfarlane@lakecountyil.gov. You may also visit the Lake County website at www.lakecountyil.gov to learn about opportunities for public participation at County Board meetings where decisions are made that affect drinking water quality. We always like to hear from our customers.

The Water Source, Treatment and Delivery System

Your community is served by five groundwater wells located on Juneway Avenue, Pekara Drive at Walnut Drive (2), Pekara Drive at the Reservoir and north of Penguin Lane. Four of the five wells reach into a water bearing limestone formation called an "aquifer" 150 feet below ground. The other is drilled into a sandstone aquifer 900 feet deep.

A network of water mains 12 miles in length interconnects the five well sites with a 600,000 gallon ground level reservoir to form a unified water supply and distribution system.

The drinking water produced by the Pekara water system meets or exceeds all IEPA requirements for drinking water safety. However, the groundwater wells that supply water have reached their useful life expectancy and are in need of upgrades. In addition, the County has received customer complaints regarding aesthetic issues (including odor, taste, and color) with ground water in this area.

The County is currently evaluating water treatment and alternative water supply options for the Pekara water system to ensure a long-term sustainable strategy for this system.

En Español

Este es un reporte importante sobre la calidad de su agua.Si usted no cuenta con alguien que pueda traducirle este reporte, llame al Lake County Department of Public Works al 847-377-7500 y con mucho gusto le asistiremos.

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Contaminants Detected

Compound (Units)	Highest Level Found	Range of Detection	MCLG	MCL	Viola-tion	Sample Date*	Probable Compound Source
Gross Alpha excluding ra-don and uranium (pCi/L)	5.7	< 0.8 - 5.7	0	15	N	2011	Erosion of natural deposits.
Arsenic (ppm)	< 0.0005	< 0.0005 - < 0.0005	n/a	0.01	N	10/4/12	Erosion of natural deposits.
Barium (ppm)	0.016	0.0117 - 0.016	2	2	N	10/4/12	Erosion of natural deposits.
Chlorine (ppm)	1.6	0.4 - 1.6	MRDLG = 4	MRDL = 4	N	2013	Disinfectant used to eliminate bacteria.
Chromium (ppm)	< 0.005	< 0.005 - < 0.005	0.1	0.1	N	10/4/12	Erosion of natural deposits.
Cyanide (ppm)	< 0.013	< 0.013 - < 0.013	0.2	0.2	N	1/2011	Erosion of natural deposits.
Fluoride (ppm)	1.190	1.02 - 1.19	4.0	4.0	N	10/4/12	Added for dental health.
Iron (ppm)	0.308	0.138 - 0.308	n/a	1.0	N	10/4/12	Erosion of natural deposits.
Manganese (ppm)	< 0.015	< 0.015 - < 0.015	n/a	0.15	N	10/4/12	Erosion of natural deposits.
Mercury (ppm)	< 0.0002	< 0.0002 - < 0.0002	0.002	0.002	N	10/4/12	Erosion of natural deposits.
Nitrate (as Nitrogen) (ppm)	0.05	< 0.05 - < 0.05	10	10	N	7/18/13	Erosion of natural deposits.
Nitrite (as Nitrogen) (ppm)	< 0.04	< 0.04 - < 0.04	1	1	N	2012	Erosion of natural deposits.
Sodium (ppm)**	114.0	88.3 - 114.0	n/a	n/a	N	10/4/12	Erosion of natural deposits.
Sulfate (ppm)**	500	351 - 500	n/a	n/a	N	10/4/12	Erosion of natural deposits.
Total Haloacetic Acids (HAA5) (ppb)	6.15	6.15 - 6.15	n/a	60	N	6/20/13	By-product of drinking water chlorination.
Total Trihalomethanes (TTHMs) (ppb)	36.7	36.7 - 36.7	n/a	80	N	6/20/13	By-product of drinking water chlorination.
Zinc (ppm)	< 0.100	< 0.100 - < 0.100	n/a	5.0	N	10/4/12	Erosion of natural deposits.
Combined radium (226/228) (pCi/L)	3.8	0.2 - 3.8	0	5	N	2011	Erosion of natural deposits.

* Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for during the CCR calendar year. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.

** There is not a federal or state MCL for sodium or sulfate. Sodium Monitoring is required for information to consumers and health officials that are concerned about sodium intake due to dietary precautions.

Abbreviation	Definition
AL	Action Level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements.
MCL	Maximum Contaminant Level is the highest level of a contaminant that is allowed in drinking water.
MCLG	Maximum Contaminant Level Goal is the contaminant level below which there is no known or expected health risk.
n/a	Not Applicable
MRDL	The highest level of a disinfectant allowed in drinking water.
MRDLG	The level of a drinking water disinfectant below which there is no known or expected risk to health.
NTU	Nephelometric Turbidity Units is a measure of water clarity.
pCi/L	pico Curies per liter.
pos/month	The maximum number of positive samples collected in a calendar month.
ppb	Parts-per-billion is also referred to as micrograms per liter (µg/L). Equivalent to one ounce in 7,812,500 gallons of water.
ppm	Parts-per-million is also referred to as milligrams per liter (mg/L). Equivalent to one ounce in 7,812 gallons of water.
TT	Treatment Technique refers to a required process intended to reduce contaminant levels in drinking water.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. *Immuno-compromised* persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The USEPA and Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline at 1-800-426-4791.

Contaminant Sources in Drinking Water

Both tap and bottled water come from rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animal or human activity. Contaminants that may be present in untreated water include:

- Microbial contaminants such as viruses and bacteria can be naturally occurring or may come from sewage treatment plants, septic systems and live stock operations.
- Inorganic contaminants such as salts and metals can be naturally occurring or can result from urban storm water runoff, wastewater discharges, oil or gas production, mining, or farming.
- Pesticides and herbicides come from sources such as agricultural and residential storm water runoff.
- Organic chemical contaminants including synthetic and volatile organic compounds are by-products of industrial processes and petroleum production but can also come from gas stations, urban storm water runoff and septic systems.
- Radioactive contaminants can be naturally occurring or be the result of oil and gas production and mining activities.

NOTE: Lake County is in full compliance with all State and Federal regulations governing the control of lead and copper within public drinking water supplies. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Lake County Public Works is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information about lead in drinking water, testing methods, and steps to minimize exposure is available from the Safe Drinking Water Hotline at1-800-426-4791 or at http://www.epa.gov/safewater/lead.

Lead and Copper

Compound (Units)	90th Percentile	# of Sites Over Action Level	MCLG	Action Level	Sample Date*	Probable Compound Source
Copper (ppm)	0.379	0	1.3	1.3	7/2011	Erosion of natural deposits; Corrosion of household plumbing.
Lead (ppb)	< 4	0	0	15	7/2011	Erosion of natural deposits; Corrosion of household plumbing.

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest Number of Positive	Fecal Coliform or E.Coli Maximum Contaminant Level	Total No. of Positive E.Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample	0	0	0	0	Naturally present in the environment.

Source Water Assessment

Based on information obtained in a Well Site Survey published in 1990 by the Illinois EPA, one potential problem site was identified within the survey area of Pekara Subdivision's wells. Furthermore, information provided by the Leaking Underground Storage Tank Section of the Illinois EPA indicated several additional sites with ongoing remediation which may be of concern. The Illinois EPA has determined that the Pekara Subdivision Community Water Supply's source water is not susceptible to contamination. This determination is based on a number of criteria including: monitoring conducted at the wells, monitoring conducted at the entry point to the distribution system, and the available hydrogeologic data on the wells.

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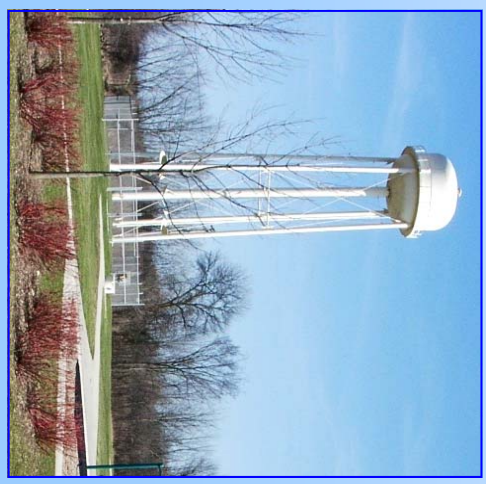

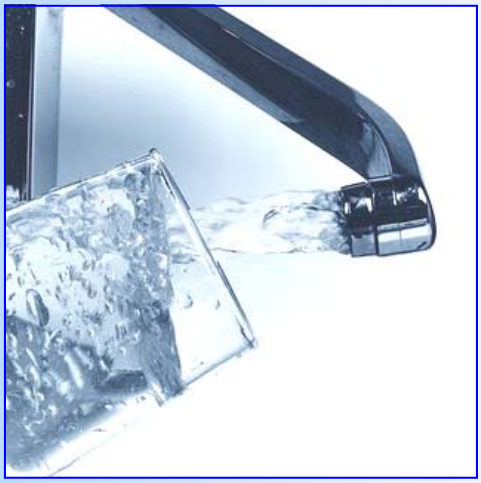

LakeCounty

2014 Water Quality Report

Pekara Water System